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Siemens Corporation Attn: Elsa Keller, Legal Administrator			PATEL, HARESH N		
Intellectual Property 186 Wood Avenue S	Department outh		ART UNIT	PAPER NUMBER	
Iselin, NJ 08830			2154		
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Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

· ·		Application No.	Applicant(s)		
		09/742,696	CALLAGHAN ET AL	CALLAGHAN ET AL.	
	Office Action Summary	Examiner	Art Unit		
		Haresh Patel	2154		
Period f	The MAILING DATE of this communication app or Reply	pears on the cover sheet w	ith the correspondence addre	ess	
WHIII - Extending - Extending - If No Faili - Any	HORTENED STATUTORY PERIOD FOR REPL' CHEVER IS LONGER, FROM THE MAILING Digensions of time may be available under the provisions of 37 CFR 1.1 or SIX (6) MONTHS from the mailing date of this communication. O period for reply is specified above, the maximum statutory period variet to reply within the set or extended period for reply will, by statute reply received by the Office later than three months after the mailing and patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUN 36(a). In no event, however, may a will apply and will expire SIX (6) MO a, cause the application to become A	ICATION. reply be timely filed  NTHS from the mailing date of this comr. BANDONED (35 U.S.C. § 133).		
Status				•	
1)⊠	Responsive to communication(s) filed on <u>15 N</u>	ovember 2006			
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Disposit	ion of Claims		·		
4)⊠	Claim(s) 1-20 is/are pending in the application	,	•		
	4a) Of the above claim(s) is/are withdraw	wn from consideration.			
5)[	Claim(s) is/are allowed.				
6)⊠	Claim(s) <u>1-20</u> is/are rejected.	,			
7)	Claim(s) is/are objected to.				
8)[	Claim(s) are subject to restriction and/o	r election requirement.			
Applicat	ion Papers				
9)□	The specification is objected to by the Examine	er.			
•	The drawing(s) filed on is/are: a) ☐ acc		by the Examiner.		
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·	Replacement drawing sheet(s) including the correct			1.121(d).	
11)	The oath or declaration is objected to by the Ex	·	• • • •		
	under 35 U.S.C. § 119	:			
	Acknowledgment is made of a claim for foreign	priority under 35 LLS C	\$ 110(a) (d) or (f)	٠	
•	☐ All b)☐ Some * c)☐ None of:	priority under 35 0.5.C.	9 119(a)-(u) or (i).		
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#### DETAILED ACTION

1. Claims 1-20 are subject to examination.

### Response to Arguments

2. Applicant's arguments filed 11/15/2006, pages 6-9, have been fully considered but they are not persuasive. Therefore, rejection of claims 1-20 is maintained.

Applicant argues, "However, the Schuster et al. system very clearly does not include a private branch exchange. The Office action acknowledges, however, that Schuster et al. fails to teach load balancing and synchronously and asynchronously sending messages. Thus, in rejecting claims 1 - 4, it is asserted that Bowman- Amauh teaches load balancing and synchronously and asynchronously sending messages. The Office action further acknowledges, however, that neither Schuster et al. nor Bowman -Amauh teaches managing "a pool of message threads to balance" or, "a list of unique integers identifying ... dispatcher client ... to receive ... messages." Thus, in rejecting claims 5 - 16, the Office action asserts that Ben-Sachar et al. teaches managing "a pool of message threads to balance" or, "a list of unique integers identifying ... dispatcher Clients ... to receive ... messages."

Schuster et al. teaches a packet based telephone system, i.e., a "system and method for providing user mobility services on a data network telephony system. User attributes may be transmitted from a portable information device, such as a personal digital assistant, to a voice communication device, such as an Ethernet-based telephone." Abstract (emphasis added). While Schuster et al. provides extensive discussion of PBX features provided in a non-residential setting, this discussion is restricted to the Schuster et al. Background. Col. 1, line 14 - col. 3, line

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40. Moreover, Schuster et al. specifically recites that it "would be desirable to incorporate CLASS and PBX feature into a data network telephony system that uses a data network such as the Internet," i.e., a packet based telephone system. Col. 3, lines 37 - 40 (emphasis added). If PBX features are incorporated into a packet network, why would one need a PBX as well? Certainly, the applicants could find nothing in Schuster et al. or any other reference of record that would suggest such an addition. Thus, the absence of a PBX in the Schuster et ai. exemplary embodiment of Figure 1, for example. See, col. 1, lines 31 -41, and see, Figures 2- 15. Certainly, if Schuster et al. were actually to teach an Interact based digital telephone system with a PBX, the PBX would show up in one of the Figures or in the discussion of the figures or somewhere besides in the Background discussion. Instead, Schuster et al. teaches using external devices (PIDs 110, 210, 310, 410) linked through telephones to provide additional function to the system 100, 200, 300, 400. See, eg., col. 7, line 10 -col. 8, line 48 andsee, col. 6, line 30 ("A. PID-Enabled Data Network Telephony System").

As noted here in above, an Interact server including the software dispatcher recited in claim 1, for example, may be added to a PBX to upgrade PBX based telephony services. With such an addition, PBX system "users would benefit from low cost IP telephony," as an intermediate solution to replacing the system. Page 1, lines 23 - 28. Thus, because Schuster et al. teaches a packet based system with PBX features and using external devices connected • through another intermediate device to provide additional functions to a packet based system; it is clear that Schuster et al. teaches away from "a software dispatcher in a telephony Interact server coupled between a packet network and a private branch exchange," as claim 1 recites at lines 2 - 3. See also, claim 7, line 4, claim 12, line 2 - 4, and claim 16, line 4. Therefore, regardless of

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what is taught by Bowman-Amauh, the addition of load balancing and synchronously and asynchronously sending messages with Schuster et al., still fails m result in the present invention as recited in claim 1. Neither does the addition of managing "a pool of message threads to balance" and/or "a list of unique integers identifying.., dispatcher clients ... to receive ... messages" add anything to the combination of load balancing and synchronously and asynchronously sending messages with Schuster et al. result in the present invention as recited in claims 7, 12 or I6.

The examiner respectfully disagrees in response to applicant's arguments. Contrary to applicant's assertions, the teachings of the cited references are not limited as concluded by the applicant as mentioned above. The applicant to cite the alternative teachings of the reference does not mean the teachings of the broadly claimed invention taught by the cited arts should not be considered.

In fact, when reviewing a reference the applicants should remember that not only the specific teachings of a reference but also reasonable inferences which the artisan would have logically drawn therefrom may be properly evaluated in formulating a rejection. In re Preda, 401 F. 2d 825, 159 USPQ 342 (CCPA 1968) and In re Shepard, 319 F. 2d 194, 138 USPQ 148 (CCPA 1963). Skill in the art is presumed. In re Sovish, 769 F. 2d 738, 226 USPQ 771 (Fed. Cir. 1985). Furthermore, artisans must be presumed to know something about the art apart from what the references disclose. In re Jacoby, 309 F. 2d 513, 135 USPQ 317 (CCPA 1962). The conclusion of obviousness may be made from common knowledge and common sense of a person of ordinary skill in the art without any specific hint or suggestion in a particular reference. In re Bozek, 416 F.2d 1385, 163 USPQ 545 (CCPA 1969). Every reference relies to some extent

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on knowledge of persons skilled in the art to complement that which is disclosed therein. In re Bode, 550 F. 2d 656, 193 USPQ 12 (CCPA 1977).

Schuster-3Com discloses a system (system that provides user access to voice and data network services, col., 3, lines 53 – 59, incorporating CLASS and PBX features into a data network telephony system that uses a data network such as the Internet, col., 3, lines 38 - 40) comprising:

a software dispatcher (usage of function that support registering information col., 17, lines 1-11, processing the call by referencing a registration database and directing the call to the voice communication device, step 1506 of figure 15) in a telephony Internet server (usage of Internet Telephony Gateway, col., 6, lines 51 – 60, col., 10, lines 26 - 34) coupled between a packet network (IP network, Ethernet LAN, VoIP on Internet, col., 6, lines 45 – 54) and a private branch exchange (PSTN and PSTN Central Office, col., 6, lines 48 – 61, usage of PBX, col., 3, lines 38 – 40), the software dispatcher configured to dynamically (dynamic support of phone features for a user, col., 4, lines 16-21) add software system application features (available features for the user, i.e., Camp-on queuing, Call forwarding, col., 2, lines 25 – 44, phone forwarding, col., 4, lines 16 - 22, transfer of user attributes, col., 4, lines 32 - 36, preferences of the user for the phone operation, col., 4, lines 9 - 11, functionality available to the user, col., 7, lines 29 - 31, that is similar to the features of the specification of this application under prosecution) associated with and handle information (usage of voice and data network services for handling calls, col., 3, lines 53 - 59) between said private branch exchange (Internet Telephony Gateway, col., 6, lines 51 – 60, col., 10, lines 26 - 34) and said packet network (PSTN and PSTN Central Office, col., 6, lines 48 – 61, usage of PBX, col., 3, lines 38 – 40) and adapted

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to maintain (usage of registration database maintained by the registration server, col., 4, lines 63 – 65) a list of dispatcher clients (usage of registration database for user attributes associated with users of respective communication device, col., 24, lines 8 – 17, registration of the owner/user information with the information of the data network telephone in a database, col., 3, lines 60 - 67); and

a plurality of dispatcher clients (users of respective communication device, col., 24, lines 8 – 17, owner/user of the data network telephones, col., 3, lines 60 -67); adapted to identify (usage user identification information, col., 3, lines 61 – 64, col., 7, lines 13 – 18, col., 11, lines 32 - 35) to said software dispatcher particular messages (messages containing session information, col., 12, lines 59 – 66, multiple messages containing type of the message, payload type field, payload, data types, data coded as G.711 with a payload type code of 0, PID data with a payload type code of 190, type of channels (RTP and UDP) information, multiple data types with a data channel with multiple different types of packets, col., 23, lines 3 – 24, that is similar to the messages of the specification of this application under prosecution) for receiving (maintaining telephony communication, col., 12, lines 26 – 30, col., 22, lines 34 - 44);

said software dispatcher adapted to send messages (messages for session information sent back and forth, col., 12, lines 59 - 66) to said plurality of dispatcher clients (users of respective communication device, col., 24, lines 8 - 17, owner/user of the data network telephones, col., 3, lines 60 - 67).

Bowman-Amuah-Accenture discloses well-known concepts of using balance system workload (paragraphs 1130, 1153, 1729, 1734, 1754, 1790, 3370, 3405, 3652, 4115-4117, 4125,

4126) and sending messages synchronously and asynchronously (voice applications / telephone call, paragraphs 1240, 755, 1001, 1012, 1013).

Also, the specification of this application under prosecution at lines 2-5 of page 11 clearly states, "The invention described in the above detailed description is not intended to be limited to the specific form set forth herein, but is intended to cover such alternatives, modifications and equivalents as can reasonably be included within the spirit and scope of the appended claims. Since, applicant's claims contain broadly claimed subject matter, it clearly reads upon the examiner's interpretation of the claimed subject matter. Therefore, the rejection is maintained.

## Claim Rejections - 35 USC § 103

- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 4. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schuster et al., 6,446,127, 3Com Corporation (Hereinafter Schuster-3Com) in view of Bowman-Amuah, 2003/0058277, Accenture (Hereinafter Bowman-Amuah-Accenture).
- 5. As per claim 1, Schuster-3Com discloses a system (system that provides user access to voice and data network services, col., 3, lines 53 59, incorporating CLASS and PBX features into a data network telephony system that uses a data network such as the Internet, col., 3, lines 38 40) comprising:

a software dispatcher (usage of function that support registering information col., 17, lines 1-11, processing the call by referencing a registration database and directing the call to the voice communication device, step 1506 of figure 15) in a telephony Internet server (usage of Internet Telephony Gateway, col., 6, lines 51 – 60, col., 10, lines 26 - 34) coupled between a packet network (IP network, Ethernet LAN, VoIP on Internet, col., 6, lines 45 – 54) and a private branch exchange (PSTN and PSTN Central Office, col., 6, lines 48 – 61, usage of PBX, col., 3, lines 38 – 40), the software dispatcher configured to dynamically (dynamic support of phone features for a user, col., 4, lines 16-21) add software system application features (available features for the user, i.e., Camp-on queuing, Call forwarding, col., 2, lines 25 – 44, phone forwarding, col., 4, lines 16 - 22, transfer of user attributes, col., 4, lines 32 - 36, preferences of the user for the phone operation, col., 4, lines 9-11, functionality available to the user, col., 7, lines 29 - 31, that is similar to the features of the specification of this application under prosecution) associated with and handle information (usage of voice and data network services for handling calls, col., 3, lines 53 - 59) between said private branch exchange (Internet Telephony Gateway, col., 6, lines 51 – 60, col., 10, lines 26 - 34) and said packet network (PSTN and PSTN Central Office, col., 6, lines 48 – 61, usage of PBX, col., 3, lines 38 – 40) and adapted to maintain (usage of registration database maintained by the registration server, col., 4, lines 63 -65) a list of dispatcher clients (usage of registration database for user attributes associated with users of respective communication device, col., 24, lines 8-17, registration of the owner/user information with the information of the data network telephone in a database, col., 3, lines 60 -67); and

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a plurality of dispatcher clients (users of respective communication device, col., 24, lines 8 – 17, owner/user of the data network telephones, col., 3, lines 60 -67); adapted to identify (usage user identification information, col., 3, lines 61 – 64, col., 7, lines 13 – 18, col., 11, lines 32 - 35) to said software dispatcher particular messages (messages containing session information, col., 12, lines 59 – 66, multiple messages containing type of the message, payload type field, payload, data types, data coded as G.711 with a payload type code of 0, PID data with a payload type code of 190, type of channels (RTP and UDP) information, multiple data types with a data channel with multiple different types of packets, col., 23, lines 3 – 24, that is similar to the messages of the specification of this application under prosecution) for receiving (maintaining telephony communication, col., 12, lines 26 – 30, col., 22, lines 34 - 44);

said software dispatcher adapted to send messages (messages for session information sent back and forth, col., 12, lines 59-66) to said plurality of dispatcher clients (users of respective communication device, col., 24, lines 8-17, owner/user of the data network telephones, col., 3, lines 60-67).

However, Schuster-3Com does not specifically mention about balance system workload and sending messages synchronously and asynchronously.

Bowman-Amuah-Accenture discloses well-known concepts of using balance system workload (paragraphs 1130, 1153, 1729, 1734, 1754, 1790, 3370, 3405, 3652, 4115-4117, 4125, 4126) and sending messages synchronously and asynchronously (voice applications / telephone call, paragraphs 1240, 755, 1001, 1012, 1013).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Schuster-3Com with the teachings of Bowman-Amuah-

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Accenture in order to facilitate usage of balance system workload because it would enhance handling the workload and improve overall system performance. The concept of balancing the workload would help distribute the workload among the entities that support processing the workload. Distributing the workload based on determination of the available entity among the entities would utilize the available entity for faster processing of the workload. Sending messages synchronously and asynchronously would support improving performance of the system by recovering information of the lost messages in the system (please see paragraphs 1130, 1153, 1729, 1734, 1754, 1790, 3370, 3405, 3652, 4115-4117, 4125, 4126, 1240, 755, 1001, 1012, 1013).

- 6. As per claim 2, Schuster-3Com and Bowman-Amuah-Accenture disclose the claimed limitations rejected under claim 1. Schuster-3Com also discloses said software dispatcher is adapted to save asynchronous messages for later transmission in a logical message queues (usage of queuing until the callee can accept, col., 2, lines 32 35, col., 1, lines 41 43, col., 9, lines 45 40, usage of asynchronous transfer mode link, col., 8, lines 5-6).
- 7. As per claim 3, Schuster-3Com and Bowman-Amuah-Accenture disclose the claimed limitations rejected under claims 1 and 2. Schuster-3Com also discloses messages are dispatched to identified ones of said plurality of dispatcher clients (users that are using their respective communication device, col., 24, lines 8 17, owner/users utilizing the data network telephones, col., 3, lines 60 -67).

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However, Schuster-3Com does not specifically mention about dispatching in order of dispatcher client priority.

Bowman-Amuah-Accenture discloses well-known concept of dispatching in order of dispatcher client priority (usage of priority delivery, paragraph 941, priority message delivery, paragraph 1150, usage of utilization based load balancing, 4118 and 4126).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Schuster-3Com with the teachings of Bowman-Amuah-Accenture in order to facilitate usage of dispatching in order of dispatcher client priority because it would enhance handling the messages by an entity having high priority and improve overall system performance. The concept of assigning the messages based on the priority would help distribute the messages to the entity that support processing the messages faster than other entities (please see, paragraphs 941, 1150, 4118 and 4126).

8. As per claim 4, Schuster-3Com and Bowman-Amuah-Accenture disclose the claimed limitations rejected under claims 1 and 2. Schuster-3Com also discloses said messages being sent as flexible message parameters comprising name, type, and value fields (messages containing payload type field, source number, destination number, payload with each of the data types, and/or header indicating type of data, data coded as G.711 with a payload type code of 0, PID data with a payload type code of 190, multiple channels (RTP and UDP) information, multiple data types with a data channel with multiple different types of packets, col., 23, lines 3 – 24, col., 22, lines 34 – 44, that is similar to the flexible message parameters of the specification of this application under prosecution).

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9. Claims 5-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schuster-3Com in view of Bowman-Amuah-Accenture and Ben-Shachar et al., 6,209,018, Sun Microsystems, Inc (Hereinafter Ben-Shachar-Sun).

10. As per claim 5, Schuster-3Com and Bowman-Amuah-Accenture disclose the claimed limitations rejected under claims 1, 2 and 4. Schuster-3Com also discloses said value field further comprises another flexible parameter (messages containing payload type field, payload, data types, data coded as G.711 with a payload type code of 0, PID data with a payload type code of 190, multiple channels (RTP and UDP) information, multiple data types with a data channel with multiple different types of packets, col., 23, lines 3 – 24, col., 22, lines 34 – 44, that is similar to the flexible parameter of the specification of this application under prosecution).

However, Schuster-3Com and Bowman-Amuah-Accenture do not specifically mention about usage of managing a pool of message threads.

Ben-Shachar-Sun discloses the concept of managing a pool of message threads (usage of load balancing manager for balancing workloads among workers in a worker pool, col., 3, lines 32-49, col., 30, lines 5-8, with multi-threads handling messages, col., 29, lines 34-47, col., 8, lines 34-43).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Schuster-3Com and Bowman-Amuah-Accenture with the teachings of Ben-Shachar-Sun in order to facilitate usage of managing a pool of message threads because it would enhance handling the messages by the entities utilizing multi-threads for

improving the overall system performance. The concept of balancing the workload using the multi-threads would help distribute the workload among the threads supporting the entities for processing the workload (please see, col., 3, lines 32 - 49, col., 30, lines 5 - 8, col., 29, lines 34 - 47, col., 8, lines 34 - 43).

11. As per claim 6, Schuster-3Com and Bowman-Amuah-Accenture disclose the claimed limitations rejected under claim 1. Schuster-3Com also discloses each of said messages is identified to said software dispatcher by a message number (usage of multiple messages containing type of the message, payload type field, payload, data types, data coded as G.711 with a payload type code of 0, PID data with a payload type code of 190, type of channels (RTP and UDP) information, multiple data types with a data channel with multiple different types of packets, col., 23, lines 3 – 24, col., 22, lines 34 – 44, that is similar to the message number of the specification of this application under prosecution).

However, Schuster-3Com and Bowman-Amuah-Accenture do not specifically mention about usage of list of unique integers identifying dispatcher clients to receive messages.

Ben-Shachar-Sun discloses the concept of list of unique integers identifying dispatcher clients to receive messages (usage of worker handle, col., 8, lines 34 – 38, usage of worker statistics, block 452 of figure 28, worker registration of figure 24, usage of registry 456, figure 28, load balancing manager for balancing workloads among workers in a worker pool, col., 3, lines 32 – 49, col., 30, lines 5 – 8, with multi-threads handling messages, col., 29, lines 34 – 47, col., 8, lines 34 - 43).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Schuster-3Com and Bowman-Amuah-Accenture with the teachings of Ben-Shachar-Sun in order to facilitate usage of list of unique integers identifying dispatcher clients to receive messages because it would enhance handling the messages by the entities utilizing multi-threads with respective identification in order to improve the overall system performance. The handles of the multi-threads being unique integers would help identify a thread among the multi-threads that would be used for processing the messages. The concept of balancing the workload using the multi-threads would help distribute the workload among the threads supporting the entities for processing the workload (please see, col., 8, lines 34 – 38, col., 3, lines 32 – 49, col., 30, lines 5 – 8, col., 29, lines 34 – 47, col., 8, lines 34 – 43).

12. As per claim 7, Schuster-3Com discloses a method (providing user access to voice and data network services, col., 3, lines 53 – 59, incorporating CLASS and PBX features into a data network telephony system that uses a data network such as the Internet, col., 3, lines 38 - 40) comprising:

maintaining a list of dispatcher clients (registration database for user attributes associated with users of respective communication device, col., 24, lines 8 - 17, registration of the owner/user information with the information of the data network telephone in a database, col., 3, lines 60 - 67) at a software dispatcher (usage of function that support registering information col., 17, lines 1 - 11, processing the call by referencing a registration database and directing the call to the voice communication device, step 1506 of figure 15), said software dispatcher configured to dynamically (dynamic support of phone features for a user, col., 4, lines 16 - 21) add software

features to software subsystems (available features for the user, i.e., Camp-on queuing, Call forwarding, col., 2, lines 25 – 44, phone forwarding, col., 4, lines 16 – 22, transfer of user attributes, col., 4, lines 32 – 36, preferences of the user for the phone operation, col., 4, lines 9 – 11, usage of Internet Telephony Gateway, col., 6, lines 51 - 60, col., 10, lines 26 - 34, functionality available to the user, col., 7, lines 29 - 31, that is similar to the features of the specification of this application under prosecution) between a packet network (IP network, Ethernet LAN, VoIP on Internet, col., 6, lines 45 - 54) and a private branch exchange (PSTN and PSTN Central Office, col., 6, lines 48 – 61, usage of PBX, col., 3, lines 38 – 40), said dispatcher clients comprising software subsystems (software handling respective communication device of the users as per the user attributes associated, col., 24, lines 8 - 17, col., 3, lines 60 - 67) said list comprising identifying particular messages (usage of multiple messages containing type of the message, payload type field, payload, data types, data coded as G.711 with a payload type code of 0, PID data with a payload type code of 190, type of channels (RTP and UDP) information, multiple data types with a data channel with multiple different types of packets, col., 23, lines 3 – 24, col., 22, lines 34 – 44, that is similar to the messages of the specification of this application under prosecution), said dispatcher clients registering (usage of registration database for user attributes associated with users of respective communication device, col., 24, lines 8 – 17, registration of the owner/user information with the information of the data network telephone in a database, col., 3, lines 60 -67) to receive predetermined messages with said dispatcher (messages containing session information, col., 12, lines 59 – 66, voice versus data network services information, col., 3, lines 53 - 59).

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dispatching messages to said dispatcher clients (messages for session information sent back and forth, col., 12, lines 59 – 66, users of respective communication device, col., 24, lines 8 – 17, owner/user of the data network telephones, col., 3, lines 60 -67).

However, Schuster-3Com does not specifically mention about balance workload and dispatching messages synchronously and asynchronously.

Bowman-Amuah-Accenture discloses well-known concepts of using balance workload (paragraphs 1130, 1153, 1729, 1734, 1754, 1790, 3370, 3405, 3652, 4115-4117, 4125, 4126) and dispatching messages synchronously and asynchronously (voice applications / telephone call, paragraphs 1240, 755, 1001, 1012, 1013).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Schuster-3Com with the teachings of Bowman-Amuah-Accenture in order to facilitate usage of balance system workload because it would enhance handling the workload and improve overall system performance. The concept of balancing the workload would help distribute the workload among the entities that support processing the workload. Distributing the workload based on determination of the available entity among the entities would utilize the available entity for faster processing of the workload. Dispatching messages synchronously and asynchronously would support improving performance of the system by recovering information of the lost messages in the system (please see paragraphs 1130, 1153, 1729, 1734, 1754, 1790, 3370, 3405, 3652, 4115-4117, 4125, 4126, 1240, 755, 1001, 1012, 1013).

However, Schuster-3Com and Bowman-Amuah-Accenture do not specifically mention about usage of list of unique integers identifying dispatcher clients to receive messages.

Ben-Shachar-Sun discloses the concept of list of unique integers identifying dispatcher clients to receive messages (usage of worker handle, col., 8, lines 34 – 38, usage of worker statistics, block 452 of figure 28, worker registration of figure 24, usage of registry 456, figure 28, load balancing manager for balancing workloads among workers in a worker pool, col., 3, lines 32 – 49, col., 30, lines 5 – 8, with multi-threads handling messages, col., 29, lines 34 – 47, col., 8, lines 34 - 43).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Schuster-3Com and Bowman-Amuah-Accenture with the teachings of Ben-Shachar-Sun in order to facilitate usage of list of unique integers identifying dispatcher clients to receive messages because it would enhance handling the messages by the entities utilizing multi-threads with respective identification in order to improve the overall system performance. The handles of the multi-threads being unique integers would help identify a thread among the multi-threads that would be used for processing the messages. The concept of balancing the workload using the multi-threads would help distribute the workload among the threads supporting the entities for processing the workload (please see, col., 8, lines 34 – 38, col., 3, lines 32 – 49, col., 30, lines 5 – 8, col., 29, lines 34 – 47, col., 8, lines 34 - 43).

13. As per claim 8, Schuster-3Com, Bowman-Amuah-Accenture and Ben-Shachar-Sun disclose the claimed limitations rejected under claim 7. Schuster-3Com also discloses saving asynchronous messages for later transmission in a logical message queues (usage of queuing until the callee can accept, col., 2, lines 32 – 35, col., 1, lines 41 – 43, col., 9, lines 45 – 40, usage of asynchronous transfer mode link, col., 8, lines 5-6).

14. As per claim 9, Schuster-3Com, Bowman-Amuah-Accenture and Ben-Shachar-Sun disclose the claimed limitations rejected under claims 7 and 8.

Bowman-Amuah-Accenture also discloses well-known concept of dispatching in order of dispatcher client priority (usage of priority delivery, paragraph 941, priority message delivery, paragraph 1150, usage of utilization based load balancing, 4118 and 4126).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Schuster-3Com, Bowman-Amuah-Accenture and Ben-Shachar-Sun in order to facilitate usage of dispatching in order of dispatcher client priority because it would enhance handling the messages by an entity having high priority and improve overall system performance. The concept of assigning the messages based on the priority would help distribute the messages to the entity that support processing the messages faster than other entities (please see, paragraphs 941, 1150, 4118 and 4126).

15. As per claim 10, Schuster-3Com, Bowman-Amuah-Accenture and Ben-Shachar-Sun disclose the claimed limitations rejected under claims 7-9. Schuster-3Com also discloses said dispatching messages as flexible message parameters comprising name, type, and value fields (messages containing payload type field, source number, destination number, payload with each of the data types, and/or header indicating type of data, data coded as G.711 with a payload type code of 0, PID data with a payload type code of 190, multiple channels (RTP and UDP) information, multiple data types with a data channel with multiple different types of packets, col., 23, lines 3 – 24, col., 22, lines 34 – 44, that is similar to the flexible message parameters of

the specification of this application under prosecution), wherein only dispatcher clients (registered users only in the registration database for user attributes associated with users of respective communication device, col., 24, lines 8 – 17, col., 3, lines 60 -67) identified to receive particular messages (multiple messages, col., 23, lines 3 – 24) is aware of both content and destination of respective said particular messages (multiple messages containing type of the message, payload type field, payload, data types, data coded as G.711 with a payload type code of 0, PID data with a payload type code of 190, type of channels (RTP and UDP) information, multiple data types with a data channel with multiple different types of packets, col., 23, lines 3 – 24, col., 22, lines 34 – 44, that is similar to the messages of the specification of this application under prosecution).

16. As per claim 11, Schuster-3Com, Bowman-Amuah-Accenture and Ben-Shachar-Sun disclose the claimed limitations rejected under claim 7. Ben-Shachar-Sun also discloses managing a pool of message threads (usage of load balancing manager for balancing workloads among workers in a worker pool, col., 3, lines 32 – 49, col., 30, lines 5 – 8, with multi-threads handling messages, col., 29, lines 34 – 47, col., 8, lines 34 - 43).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Schuster-3Com, Bowman-Amuah-Accenture and Ben-Shachar-Sun in order to facilitate usage of managing a pool of message threads because it would enhance handling the messages by the entities utilizing multi-threads for improving the overall system performance. The concept of balancing the workload using the multi-threads would help distribute the workload among the threads supporting the entities for processing the workload

(please see, col., 3, lines 32 – 49, col., 30, lines 5 – 8, col., 29, lines 34 – 47, col., 8, lines 34 – 43).

17. As per claim 12, Schuster-3Com discloses a telecommunication system (incorporating CLASS and PBX features into a data network telephony system that uses a data network such as the Internet, col., 3, lines 38 - 40) comprising:

a private branch exchange (PSTN and PSTN Central Office, col., 6, lines 48 - 61, usage of PBX, col., 3, lines 38 - 40),

a server (usage of Internet Telephony Gateway, col., 6, lines 51 – 60, col., 10, lines 26 – 34, functionality available to the user, col., 7, lines 29 – 31) coupled (IP network, Ethernet LAN, VoIP on Internet, col., 6, lines 45 – 54) to the private branch exchange (PSTN and PSTN Central Office, col., 6, lines 48 – 61, usage of PBX, col., 3, lines 38 – 40), the server adapted to interface the private branch exchange to a packet network (IP network, Ethernet LAN, VoIP on Internet, col., 6, lines 45 – 54);

a software dispatcher in said server (usage of function that support registering information col., 17, lines 1 – 11, processing the call by referencing a registration database and directing the call to the voice communication device, step 1506 of figure 15), adapted to receive and dispatch message (usage of multiple messages containing type of the message, payload type field, payload, data types, data coded as G.711 with a payload type code of 0, PID data with a payload type code of 190, type of channels (RTP and UDP) information, multiple data types with a data channel with multiple different types of packets, col., 23, lines 3 – 24, col., 22, lines 34 – 44, that is similar to the message of the specification of this application under prosecution) for

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dynamically (dynamic support of phone features for a user, col., 4, lines 16 - 21) adding software features (available features for the user, i.e., Camp-on queuing, Call forwarding, col., 2, lines 25 - 44, phone forwarding, col., 4, lines 16 - 22, transfer of user attributes, col., 4, lines 32 - 36, preferences of the user for the phone operation, col., 4, lines 9 - 11, usage of Internet Telephony Gateway, col., 6, lines 51 - 60, col., 10, lines 26 - 34, functionality available to the user, col., 7, lines 29 - 31, that is similar to the features of the specification of this application under prosecution) to software subsystem (software handling respective communication device of the users / clients as per the associated user attributes, col., 24, lines 8 - 17, col., 3, lines 60 - 67),

the dispatcher identifying and distributing the messages by identifier (usage of multiple messages containing type of the message, payload type field, payload, data types, data coded as G.711 with a payload type code of 0, PID data with a payload type code of 190, type of channels (RTP and UDP) information, multiple data types with a data channel with multiple different types of packets, col., 23, lines 3 – 24, col., 22, lines 34 – 44, that is similar to the message identifying of the specification of this application under prosecution), and node (communication device, col., 24, lines 8 – 17, network element for the telephone, col., 3, lines 60 -67).

However, Schuster-3Com does not specifically mention about balance workload.

Bowman-Amuah-Accenture discloses well-known concepts of using balance workload (paragraphs 1130, 1153, 1729, 1734, 1754, 1790, 3370, 3405, 3652, 4115-4117, 4125, 4126).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Schuster-3Com with the teachings of Bowman-Amuah-Accenture in order to facilitate usage of balance system workload because it would enhance

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handling the workload and improve overall system performance. The concept of balancing the workload would help distribute the workload among the entities that support processing the workload. Distributing the workload based on determination of the available entity among the entities would utilize the available entity for faster processing of the workload. (please see paragraphs 1130, 1153, 1729, 1734, 1754, 1790, 3370, 3405, 3652, 4115-4117, 4125, 4126, 1240, 755, 1001, 1012, 1013).

However, Schuster-3Com and Bowman-Amuah-Accenture do not specifically mention about usage of unique integer for identifying.

Ben-Shachar-Sun discloses the concept of using unique integer for identifying (usage of worker handle, col., 8, lines 34 - 38, usage of worker statistics, block 452 of figure 28, worker registration of figure 24, usage of registry 456, figure 28, load balancing manager for balancing workloads among workers in a worker pool, col., 3, lines 32 - 49, col., 30, lines 5 - 8, with multi-threads handling messages, col., 29, lines 34 - 47, col., 8, lines 34 - 43).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Schuster-3Com and Bowman-Amuah-Accenture with the teachings of Ben-Shachar-Sun in order to facilitate usage of list of unique integers identifying dispatcher clients to receive messages because it would enhance handling the messages by the entities utilizing multi-threads with respective identification in order to improve the overall system performance. The handles of the multi-threads being unique integers would help identify a thread among the multi-threads that would be used for processing the messages. The concept of balancing the workload using the multi-threads would help distribute the workload among the

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threads supporting the entities for processing the workload (please see, col., 8, lines 34 - 38, col., 3, lines 32 - 49, col., 30, lines 5 - 8, col., 29, lines 34 - 47, col., 8, lines 34 - 43).

- 18. As per claim 13, Schuster-3Com, Bowman-Amuah-Accenture and Ben-Shachar-Sun disclose the claimed limitations rejected under claim 12. Ben-Shachar-Sun also discloses said software subsystem (software handling respective communication device of the users / clients as per the associated user attributes, col., 24, lines 8 17, col., 3, lines 60 -67) provide said dispatcher with an identification of a message to be delivered (type of message that is supported by the client/user software, data coded as G.711 with a payload type code of 0, PID data with a payload type code of 190, a channel among multiple supported channels (RTP and UDP), expected packet among multiple different types of packets, col., 23, lines 3 24, col., 22, lines 34 44), and said dispatcher identifies a destination (a registered user / client as per associated user attributes for a respective communication device, col., 24, lines 8 17, col., 3, lines 60 -67), whereby said software subsystem is unaware (dynamic support of the message information, col., 21, lines 1-2) of respective identified destinations (a plurality of registered users / clients as per associated user attributes for respective communication devices, other registered users / clients, col., 24, lines 8 17, col., 3, lines 60 -67).
- 19. As per claim 14, Schuster-3Com, Bowman-Amuah-Accenture and Ben-Shachar-Sun disclose the claimed limitations rejected under claim 12. Ben-Shachar-Sun also discloses said dispatcher maintains a list of registered receivers (registration database for user attributes associated with plurality of users /clients of respective communication devices, col., 24, lines 8 –

17, registration of the owner/user information with the information of the data network telephone in a database, col., 3, lines 60-67) and message numbers (type of messages that is supported by the client/user software, data coded as G.711 with a payload type code of 0, PID data with a payload type code of 190, a channel among multiple supported channels (RTP and UDP), expected packet among multiple different types of packets, col., 23, lines 3 – 24, col., 22, lines 34 – 44), each distributed message being identified (sent message information, col., 21, lines 1-2) to said dispatcher (usage of function that support registering information col., 17, lines 1 – 11, processing the call by referencing a registration database and directing the call to the voice communication device, step 1506 of figure 15) by one of said message numbers (expected type of packet among supported multiple packets, data coded as G.711 with a payload type code of 0, PID data with a payload type code of 190, a channel among multiple supported channels (RTP and UDP), col., 23, lines 3 – 24, col., 22, lines 34 – 44).

20. As per claim 15, Schuster-3Com, Bowman-Amuah-Accenture and Ben-Shachar-Sun disclose the claimed limitations rejected under claim 12. Ben-Shachar-Sun also discloses said software subsystem is adapted to register with said dispatcher (usage of function that support registering information for the users/ clients for respective devices, col., 17, lines 1 – 11), for receiving particular messages (usage of multiple messages containing type of the message, payload type field, payload, data types, data coded as G.711 with a payload type code of 0, PID data with a payload type code of 190, type of channels (RTP and UDP) information, multiple data types with a data channel with multiple different types of packets, col., 23, lines 3 – 24), and

the software dispatcher handles system workload (calls and voice and/or data network services for handling calls, col., 3, lines 53 - 59).

However, Schuster-3Com does not specifically mention about balance system workload.

Bowman-Amuah-Accenture discloses well-known concepts of using balance system workload (paragraphs 1130, 1153, 1729, 1734, 1754, 1790, 3370, 3405, 3652, 4115-4117, 4125, 4126).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Schuster-3Com, Bowman-Amuah-Accenture and Ben-Shachar-Sun in order to facilitate usage of balance system workload because it would enhance handling the workload and improve overall system performance. The concept of balancing the workload would help distribute the workload among the entities that support processing the workload. Distributing the workload based on determination of the available entity among the entities would utilize the available entity for faster processing of the workload. (please see paragraphs 1130, 1153, 1729, 1734, 1754, 1790, 3370, 3405, 3652, 4115-4117, 4125, 4126, 1240, 755, 1001, 1012, 1013).

However, Schuster-3Com and Bowman-Amuah-Accenture do not specifically mention about maintaining a pool of message threads.

Ben-Shachar-Sun discloses the concept of maintaining a pool of message threads (usage of load balancing manager for balancing workloads among workers in a worker pool, col., 3, lines 32 - 49, col., 30, lines 5 - 8, with multi-threads handling messages, col., 29, lines 34 - 47, col., 8, lines 34 - 43).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Schuster-3Com, Bowman-Amuah-Accenture and Ben-Shachar-Sun in order to facilitate usage of maintaining a pool of message threads because it would enhance handling the messages by the entities utilizing multi-threads for improving the overall system performance. The concept of balancing the workload using the multi-threads would help distribute the workload among the threads supporting the entities for processing the workload (please see, col., 3, lines 32 - 49, col., 30, lines 5 - 8, col., 29, lines 34 - 47, col., 8, lines 34 - 43).

21. As per claim 16, Schuster-3Com discloses a system (system that provides user access to voice and data network services, col., 3, lines 53 – 59, incorporating CLASS and PBX features into a data network telephony system that uses a data network such as the Internet, col., 3, lines 38 - 40) comprising:

a software dispatcher configured (usage of function that support registering information col., 17, lines 1-11, processing the call by referencing a registration database and directing the call to the voice communication device, step 1506 of figure 15, usage of Internet Telephony Gateway, col., 6, lines 51-60, col., 10, lines 26-34) to dynamically (dynamic support of phone features for a user, col., 4, lines 16-21) add software system application features (available features for the user, i.e., Camp-on queuing, Call forwarding, col., 2, lines 25-44, phone forwarding, col., 4, lines 16-22, transfer of user attributes, col., 4, lines 32-36, preferences of the user for the phone operation, col., 4, lines 9-11, functionality available to the user, col., 7, lines 29-31, that is similar to the features of the specification of this application under

prosecution) to dispatcher clients (usage of registration database for user attributes associated with users of respective communication device, col., 24, lines 8-17, registration of the owner/user information with the information of the data network telephone in a database, col., 3, lines 60 -67) and mange workload (calls and voice and/or data network services for handling calls, col., 3, lines 53 - 59) between a packet network (IP network, Ethernet LAN, VoIP on Internet, col., 6, lines 45 - 54) and a private branch exchange (PSTN and PSTN Central Office, col., 6, lines 48-61, usage of PBX, col., 3, lines 38-40), the software dispatcher adapted to maintain (usage of registration database maintained by the registration server, col., 4, lines 63 – 65) a list of dispatcher clients (usage of registration database for user attributes associated with users of respective communication device, col., 24, lines 8 – 17, registration of the owner/user information with the information of the data network telephone in a database, col., 3, lines 60 -67), messages being selectively (as per type of message that is supported by the client/user software, data coded as G.711 with a payload type code of 0, PID data with a payload type code of 190, a channel among multiple supported channels (RTP and UDP), , col., 23, lines 3-24, col., 22, lines 34 – 44) sent between the dispatcher clients (registered users / clients as per associated user attributes for a respective communication devices, col., 24, lines 8 - 17, col., 3, lines 60 -67), the dispatcher clients including software application (software supporting user / client, col., 24, lines 8 - 17, col., 3, lines 60 - 67);

a plurality of dispatcher clients (users of respective communication device, col., 24, lines 8 – 17, owner/user of the data network telephones, col., 3, lines 60 -67); adapted to identify (usage user identification information, col., 3, lines 61 – 64, col., 7, lines 13 – 18, col., 11, lines 32 - 35) to said software dispatcher particular messages (messages containing session

information, col., 12, lines 59 – 66, multiple messages containing type of the message, payload type field, payload, data types, data coded as G.711 with a payload type code of 0, PID data with a payload type code of 190, type of channels (RTP and UDP) information, multiple data types with a data channel with multiple different types of packets, col., 23, lines 3 – 24, col., 22, lines 34-44) for receiving (maintaining telephony communication, col., 12, lines 26-30) from other dispatcher clients (other registered users /clients, col., 24, lines 8 – 17, col., 3, lines 60 –67), wherein said other dispatcher clients identify (available features for the user, i.e., Camp-on queuing, Call forwarding, col., 2, lines 25 – 44, phone forwarding, col., 4, lines 16 – 22, transfer of user attributes, col., 4, lines 32 - 36, preferences of the user for the phone operation, col., 4, lines 9 - 11, functionality available to the user, col., 7, lines 29 - 31) messages (messages containing session information, col., 12, lines 59-66, multiple messages containing type of the message, payload type field, payload, data types, data coded as G.711 with a payload type code of 0, PID data with a payload type code of 190, type of channels (RTP and UDP) information, multiple data types with a data channel with multiple different types of packets, col., 23, lines 3 – 24, col., 22, lines 34 – 44) for sending to said software dispatcher (communicating to the function that support registering information col., 17, lines 1-11, processing the call by referencing a registration database and directing the call to the voice communication device, step 1506 of figure 15),

said software dispatcher adapted to send messages (messages for session information sent back and forth, col., 12, lines 59-66) to identified receiving ones of said plurality of dispatcher clients (users of respective communication device, col., 24, lines 8-17, owner/user of the data network telephones, col., 3, lines 60-67).

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However, Schuster-3Com does not specifically mention about balance workload and sending messages synchronously and asynchronously.

Bowman-Amuah-Accenture discloses well-known concepts of using balance system workload (paragraphs 1130, 1153, 1729, 1734, 1754, 1790, 3370, 3405, 3652, 4115-4117, 4125, 4126) and sending messages synchronously and asynchronously (voice applications / telephone call, paragraphs 1240, 755, 1001, 1012, 1013).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Schuster-3Com with the teachings of Bowman-Amuah-Accenture in order to facilitate usage of balance system workload because it would enhance handling the workload and improve overall system performance. The concept of balancing the workload would help distribute the workload among the entities that support processing the workload. Distributing the workload based on determination of the available entity among the entities would utilize the available entity for faster processing of the workload. Sending messages synchronously and asynchronously would support improving performance of the system by recovering information of the lost messages in the system (please see paragraphs 1130, 1153, 1729, 1734, 1754, 1790, 3370, 3405, 3652, 4115-4117, 4125, 4126, 1240, 755, 1001, 1012, 1013).

However, Schuster-3Com and Bowman-Amuah-Accenture do not specifically mention about managing a pool of message threads.

Ben-Shachar-Sun discloses the concept of managing a pool of message threads (usage of load balancing manager for balancing workloads among workers in a worker pool, col., 3, lines

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32 - 49, col., 30, lines 5 - 8, with multi-threads handling messages, col., 29, lines 34 - 47, col., 8, lines 34 - 43).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Schuster-3Com, Bowman-Amuah-Accenture and Ben-Shachar-Sun in order to facilitate usage of managing a pool of message threads because it would enhance handling the messages by the entities utilizing multi-threads for improving the overall system performance. The concept of balancing the workload using the multi-threads would help distribute the workload among the threads supporting the entities for processing the workload (please see, col., 3, lines 32 – 49, col., 30, lines 5 – 8, col., 29, lines 34 – 47, col., 8, lines 34 – 43).

22. Referring to claims 17-20, refer to the rejections of the above-rejected similar limitations of the claims 1-16 for rejection and combination of references.

### Conclusion

- 23. The prior art made of record (forms PTO-892 and applicant provided IDS cited arts) and not relied upon is considered pertinent to applicant's disclosure.
- 24. Applicant is suggested to make the following amendments to the claims to define the scope of their invention and to distinguish over the prior art. TBD

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Examiner has cited particular columns and line numbers and/or paragraphs and/or sections and/or page numbers in the reference(s) as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety, as potentially teaching, all or part of the claimed invention, as well as the context of the passage, as taught by the prior art or disclosed by the Examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Haresh Patel whose telephone number is (571) 272-3973. The examiner can normally be reached on Monday, Tuesday, Thursday and Friday from 10:00 am to 8:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Haresh Patel

February 1, 2007

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